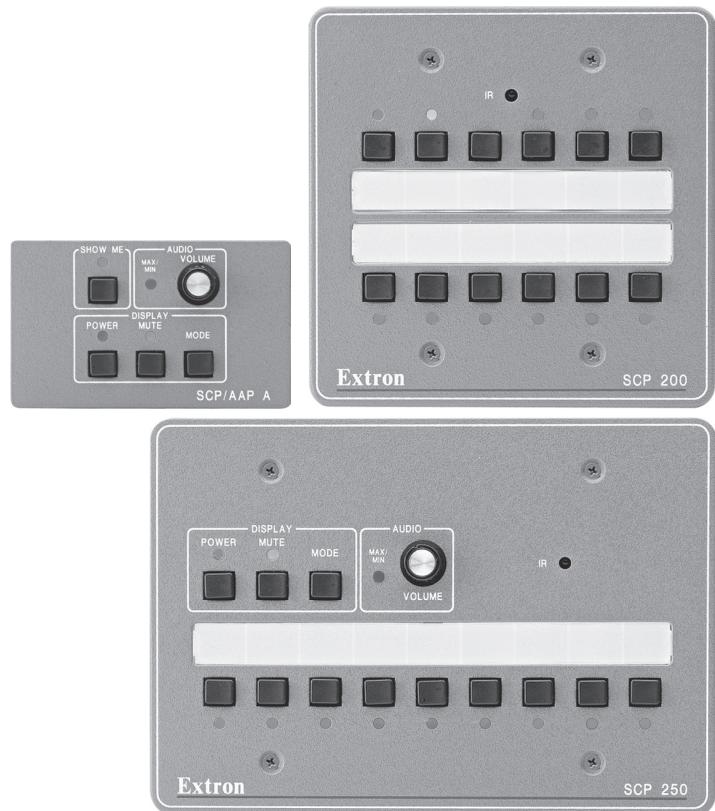




Extron Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

User's Manual



SCP/AAP A, SCP 200, SCP 250 Control Pads for Use With System Switchers



Extron Electronics, USA
1230 South Lewis Street
Anaheim, CA 92805
USA
714.491.1500
Fax 714.491.1517

Extron Electronics, Europe
Beeldschermweg 6C
3821 AH Amersfoort
The Netherlands
+31.33.453.4040
Fax +31.33.453.4050

Extron Electronics, Asia
135 Joo Seng Road, #04-01
PM Industrial Building
Singapore 368363
+65.6383.4400
Fax +65.6383.4664

Extron Electronics, Japan
Daisan DMJ Building 6F
3-9-1 Kudan Minami
Chiyoda-ku, Tokyo 102-0074 Japan
+81.3.3511.7655
Fax +81.3.3511.7656

68-511-01
Printed in the USA

Precautions

Safety Instructions • English

 This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

 This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

Caution

Read Instructions • Read and understand all safety and operating instructions before using the equipment.

Retain Instructions • The safety instructions should be kept for future reference.

Follow Warnings • Follow all warnings and instructions marked on the equipment or in the user information.

Avoid Attachments • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

Consignes de Sécurité • Français

 Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).

 Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

Attention

Lire les instructions • Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

Conserver les instructions • Ranger les consignes de sécurité afin de pouvoir les consulter à l'avance.

Respecter les avertissements • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

éviter les pièces de fixation • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

Sicherheitsanleitungen • Deutsch

 Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.

 Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

Achtung

Lesen der Anleitungen • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits- und Bedienungsanleitungen genau durchlesen und verstehen.

Arbeiten mit den Anleitungen • Die Hinweise zur elektronischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

Befolgen der Warnhinweise • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerinformation.

Keine Zusatzelektroniken • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

Instrucciones de seguridad • Español

 Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (el cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.

 Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

Precaución

Leer las instrucciones • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

Consever las instrucciones • Conservar las instrucciones de seguridad para futura consulta.

Obedecer las advertencias • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

Evitar el uso de accesorios • No usar herramientas o accesorios que no sean específicamente recomendados por el fabricante, ya que podrían implicar riesgos.

Warning

Power sources • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

Power disconnection • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

Power cord protection • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

Servicing • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

Slots and openings • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

Lithium battery • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Avertissement

Alimentations • Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité : n'essayez pas de la contourner ni de la désactiver.

Déconnexion de l'alimentation • Pour mettre le matériel hors tension sans danger, déconnectez tous les câbles d'alimentation de l'arrière de l'appareil ou du module de puissance détachable (si c'est amovible) ou encore de la prise secteur.

Protection du cordon d'alimentation • Acheminez les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pinçés par des objets.

Réparation-maintenance • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à des haute tensions et autres dangers.

Fentes et orifices • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures doivent également être bloquées par des objets.

Lithium Batterie • Il existe danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement par une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Vorsicht

Stromquellen • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät würde für eine Verwendung mit einem Gerüdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdanschluß, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

Stromversorgungsbrechung • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel an der Rückseite des Gerätes, aus der externen Stromversorgung (falls es möglich ist) oder aus der Wandsteckdose ziehen.

Schutz des Netzkabels • Netzkabel sollten so verlegt werden, daß sie nicht im Weg liegen und nicht darüber treten kann oder Objekte darauf- oder umherrollen dagegrollt werden können.

Wartung • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder anderen Gefahren bestehen.

Schlitzte und Öffnungen • Wenn das Gerät Schlitzte oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

Lithium-Batterie • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

Advertencia

Alimentación eléctrica • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica indicada en el mismo. La alimentación eléctrica de este equipo debe provenir de un sistema de distribución general con conductor neutro. El tercero (pata) (puesta a tierra) es una medida de seguridad, no puede omitirse ni inhabilitarse.

Desconexión de la alimentación eléctrica • Para desconectar con seguridad la alimentación de la alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptorado de la pared.

Protección de los cables de alimentación • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que puedan apoyar sobre ellos.

Reparaciones/mantenimiento • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

Ranuras y aberturas • Si el equipo tiene ranuras o orificios en su caja/alojamiento, estas deben obstruirse con otros objetos. Estas aberturas nunca se deben obstruir con otros objetos.

Batería de litio • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente recomendado por el fabricante). Descharar las baterías usadas siguiendo las instrucciones del fabricante.

FCC Class A Notice

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Note: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.

Extron's Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

**USA, Canada,
South America, and
Central America:**

Extron Electronics
1230 South Lewis Street
Anaheim, CA 92805, USA

**Europe, Africa, and
the Middle East:**

Extron Electronics, Europe
Beeldschermweg 6C
3821 AH Amersfoort
The Netherlands

Extron Electronics, Asia
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), or 65.6383.4400 (Asia) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

Table of Contents

Chapter 1 • Introduction	1-1
About the SCP/AAP A, SCP 200, and SCP 250	1-2
Features	1-2
SCP 200 and SCP 250 feature	1-2
Chapter 2 • Installation and Operation	2-1
Installation Overview	2-2
Preparing the Site, Installing the Electrical Box	2-2
Rear Panel Connectors and Switches	2-4
Cabling	2-6
Front Panel Features and Operation	2-10
Testing/Troubleshooting	2-12
Mounting the SCP to the Electrical Box	2-13
Appendix A • Specifications, Part Numbers, and Accessories	A-1
Specifications	A-2
Included Parts	A-4
Accessories	A-4
Cables	A-4
Appendix B • Dimensions, Templates, and Labels	B-1
Panel Dimensions	B-2
SCP/AAP A dimensions	B-2
SCP 200 dimensions	B-3
SCP 250 dimensions	B-4
SCP 250 dimensions details	B-5
Templates	B-6
SCP/AAP A template	B-6
SCP 200 template	B-7
SCP 250 template	B-8
Labeling Buttons on the SCPs	B-9
Button-Label Generator software	B-9
Installing the software	B-9
Using the software to make labels	B-9
Label templates	B-11
SCP 200 labels	B-11
SCP 250 labels	B-13

Table of Contents, cont'd

All trademarks mentioned in this manual are the properties of their respective owners.

68-511-01 Rev. B
Printed in the USA
02 02



SCP/AAP A, SCP 200, SCP 250

1

Chapter One

Introduction

About the SCP/AAP A, SCP 200, and SCP 250

Features

Introduction

About the SCP/AAP A, SCP 200, and SCP 250

The Extron SCP/AAP A, SCP 200, and SCP 250 are hardwired remote control keypads designed for use with Extron system switchers. Refer to the appropriate switcher's user's manual for information on installing, operating, and setting up the switcher.

NOTE *The system switcher cannot be configured from any of the SCP control pads. All switcher setup must be done from the switcher's front panel or via RS-232.*

The SCP/AAP A fits into a 3-height space (2.09" H x 3.5" W) in an Extron architectural adapter faceplate, interface, or distribution amplifier. It replicates portions of the System 5cr Plus and System 7SC front panels for simple one-input selection, display (projector) controls, and audio volume adjustment.

The SCP 200 includes a 2-gang electrical box, and the SCP 250 includes a 3-gang electrical box. Both can be mounted in or on a wall or furniture.

The SCP 200 replicates the display controls, input selection buttons, and room function buttons of the System 7SC switcher. It also accepts signals from the IR 701 remote control and sends them to the switcher.

The SCP 250 replicates the front panel controls of the System 7SC and it can also be used with the System 5cr Plus. It includes all the features and abilities of the SCP 200 and adds an audio volume control.

Features

Gray, black, or white faceplates — The SCP control pads are offered in three shades for integration into a variety of environments.

System expandability — The SCPs can be daisy chained together in any combination to provide control of a System 7SC or newer switcher from several locations.

Furniture and wall mountability — The control pads can be mounted onto or in furniture or walls with the included hardware (SCP 200 and SCP 250) or with optional mounting plates (SCP/AAP A).

SCP 200 and SCP 250 feature

Label windows — For these models customized labels can be created and inserted into the windows that are set into the faceplates.



SCP/AAP A, SCP 200, SCP 250

2 Chapter Two

Installation and Operation

Installation Overview

Preparing the Site, Installing the Electrical Box

Rear Panel Connectors and Switches

Cabling

Front Panel Features and Operation

Testing/Troubleshooting

Mounting the SCP to the Electrical Box

Installation and Operation

Installation Overview

To install and set up an SCP control pad, follow these steps:

- 1** Turn the equipment off. Make sure that the SCP and the system switcher are disconnected from the power source.
- 2** Run cables through the wall or furniture where the SCP will be installed.
- 3** Prepare the site and install and ground the electrical box (if one will be used) or mounting brackets.
- 4** Set the identification DIP switches on the circuit board.
- 5** Wire the 5-pole captive screw connectors on both ends of the cable that was installed in the wall or furniture in step **2**.
- 6** Plug the wired connectors into the receptacles on the back of the SCP and on the rear panel of the system switcher.
- 7** Restore power to the system switcher.
- 8** Press an input selection button or the "Show Me" button. If the corresponding LED does not light or the switch to the selected input is not made, disconnect power from the switcher and verify correct connector wiring at both ends of the cable.
- 9** Mount the SCP in the wall box or furniture, and make sure the faceplate is tied to an earth ground to prevent damage caused by electrostatic discharge.
- 10** Reconnect the switcher to the A/C power source.

Preparing the Site, Installing the Electrical Box

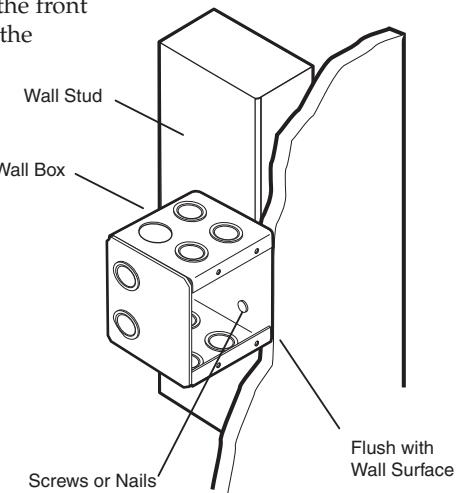
An electrical box is included with each SCP 200 and SCP 250, but a different box can be used. The box must be deep enough to contain both the SCP's electrical components and the cables.

The electrical box can be attached to wall studs or to furniture, or the SCP can be mounted in areas of walls or furniture without studs if using an optional Extron 2-gang mounting bracket, part #70-086-01, or 3-gang mounting bracket, part #70-086-01. Bracket installation instructions are included with the brackets.

Use the full-size template(s) provided in appendix B as a guide to mark and cut the hole in the wall or furniture through which the SCP will be installed. The templates include the recommended 0.1" (0.25cm) clearance on all sides of the

electrical wall box to allow room for the raised areas surrounding the knockouts.

- 1**. Cut out the center portion of the template. Cut up to the dashed line if using an electrical box, or cut up to the dotted line if an electrical box will not be used.
- 2**. If wall-mounting the SCP, locate a stud to which the wall box will be attached.
- 3**. Using the provided template, mark and cut out the opening on the wall/furniture.
- 4**. Insert the wall box (if used) into the wall, and attach the wall box to the wall stud (2" x 4") or furniture with nails or screws, leaving the front edge flush with the wall surface, as shown in the following illustration.



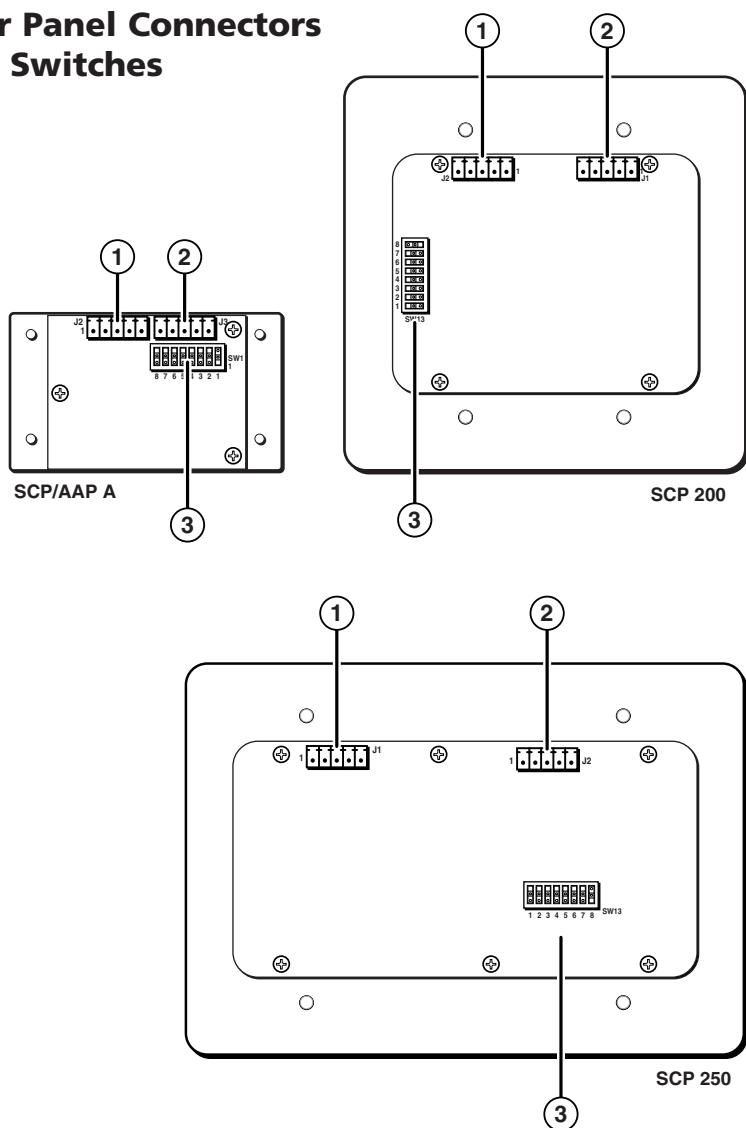
To attach the wall box to wood, use four #8 to #10 wood or sheet metal screws. A minimum of 1/2 inch (1.3 cm) of screw threads must penetrate the wood. If the wood is a 2 x 4, such as a wall stud, 10-penny or larger nails can be used.

To attach the electrical wall box to metal, use four #8 or #10 sheet metal screws (self-tapping) or #8 or #10 machine bolts with matching nuts.

NOTE *If mounting brackets will be used instead of studs, follow the mounting instructions that came with the brackets.*

- 5**. Feed the cables through the wall box. Cable clamps should be used to hold the cables in place for strain relief.
- 6**. Exposed cable shields (braids or foil) are potential sources of short circuits. Trim back and/or insulate shields with heat shrink.

Rear Panel Connectors and Switches



① & ② Communications connectors — Use these connectors to connect SCPs together and to connect them to the switcher. Both connectors function the same way, so they are interchangeable.

Plug one end of an Extron Comm-Link cable into one of these 3.5 mm, 5-pin captive screw connectors, and plug the other end into the system switcher (or to the next SCP closer to the switcher, if daisy chained).

If this SCP is at the end of a daisy chain of SCPs, do not use the other connector. If this SCP is in the middle of a chain of SCPs, plug one end of a Comm-Link cable into the second captive screw connector, and plug the other end into the next SCP further away from the switcher.

- ③ DIP switches** — Set these switches to indicate what model of system switcher the SCP is attached to. For the SCP/AAP A, these DIP switches also identify which input will be selected when the "Show Me" button is pressed.

1, 2, 3, 4 — **Input number identification** — See the table below for the appropriate settings for each SCP address.

5, 6, 7 — **Not used** — Keep these set to the closed/up position.

8 — **Switcher model identification (all models)**

Closed/up — System 7SC

Open/down — System 5cr Plus

DIP Switch Number								SCP Address	
1	2	3	4	5	6	7	8		
↑	↑	↑	↑	↑	↑	↑	↑	*	1
↓	↑	↑	↑	↑	↑	↑	↑	*	2
↑	↓	↑	↑	↑	↑	↑	↑	*	3
↓	↓	↑	↑	↑	↑	↑	↑	*	4
↑	↑	↓	↑	↑	↑	↑	↑	*	5
↓	↑	↓	↑	↑	↑	↑	↑	*	6
↑	↓	↓	↑	↑	↑	↑	↑	*	7
↓	↓	↓	↑	↑	↑	↑	↑	*	8
↑	↑	↑	↓	↑	↑	↑	↑	*	9
↓	↑	↑	↓	↑	↑	↑	↑	*	10
↑	↓	↑	↓	↑	↑	↑	↑	*	11
↓	↓	↑	↓	↑	↑	↑	↑	*	12
↑	↑	↓	↓	↑	↑	↑	↑	*	13
↓	↑	↓	↓	↑	↑	↑	↑	*	14
↑	↓	↓	↓	↑	↑	↑	↑	*	15
↓	↓	↓	↓	↑	↑	↑	↑	*	16

For all switches

↑ = closed (up)
↓ = open (down)

*For switch 8

↑ = System 7SC
↓ = System 5cr Plus

Switch 8 must be set for all SCPs.

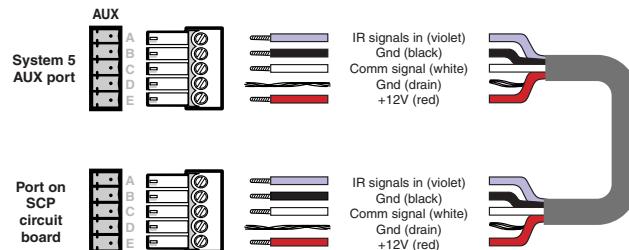
SCP DIP switch assignments

Installation and Operation, cont'd

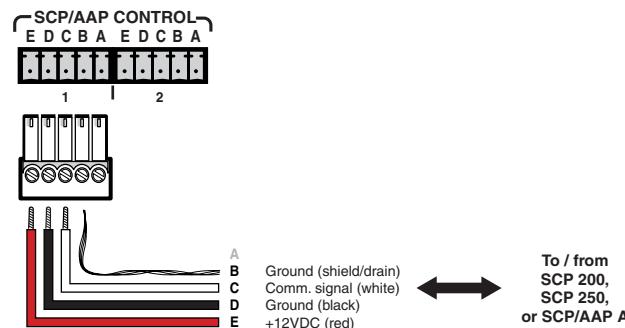
Cabling

For each SCP to be connected to a system switcher, set the rear panel DIP switches, then follow these steps:

1. If it hasn't already been done when the wall box was installed, cut a length of Extron Comm-Link cable to go between the switcher and the SCP.
2. Using the diagrams below as a guide, attach a 3.5 mm, 5-pole captive screw connector to each end of the cable. Wire both ends of the cable identically (pin A to pin A, pin B to pin B, etc.).



Wiring for use with a System 5cr Plus switcher

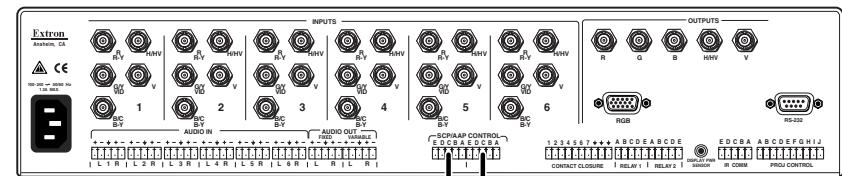


Wiring for use with a System 7SC switcher

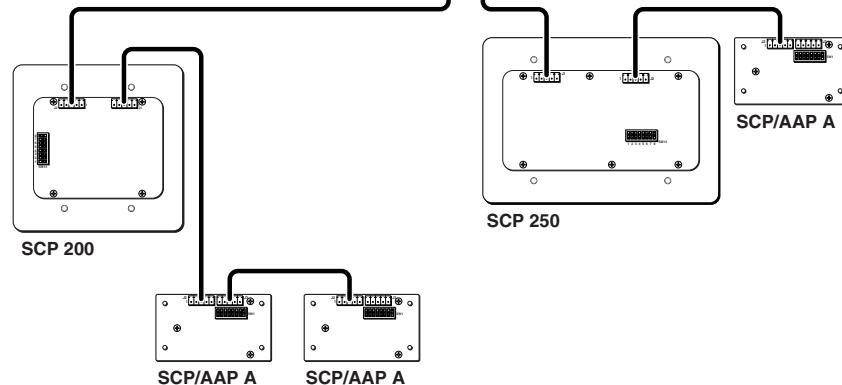
Conductor gauges in Extron Comm-Link cables	
red and black single strands	18 AWG
white and violet shielded single strands	22 AWG
drain wire	24 AWG

Connectors are included with each SCP, but the cable must be purchased separately. See page A-4 for cable part numbers. The cable should not exceed 300 feet (91.4 meters) in length.

3. Plug one end of the cable into one of the SCP's communications connectors, and plug the other end into the switcher (System 5cr Plus or System 7SC).
4. If you are using a System 7SC switcher, cut a cable and attach connectors to it for each additional SCP that will be connected in a daisy chain. Up to a total of 16 SCPs in any combination of models can be daisy chained together and connected to the System 7SC.
5. Plug one end of the cable into the SCP's other communications connector, and plug the other end into a communications connector on the next SCP closer to the switcher. The illustration below shows several SCPs connected to a System 7SC switcher in a typical daisy chain setup.



**System 7SC
Rear Panel**



A daisy chain of SCPs connected to a System 7SC

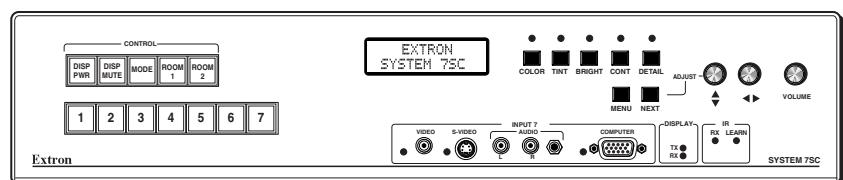
NOTE The maximum distance away from the switcher that the last SCP (or other device) in the daisy chain can be placed is 300 feet (91.4 meters).

NOTE Each port of the System 7SC switcher provides up to 12VDC for powering the SCP control pads or other devices. However, the total load for both ports combined must not exceed 1 ampere. Each SCP uses 12VDC at 0.06 ampere (60 mA).

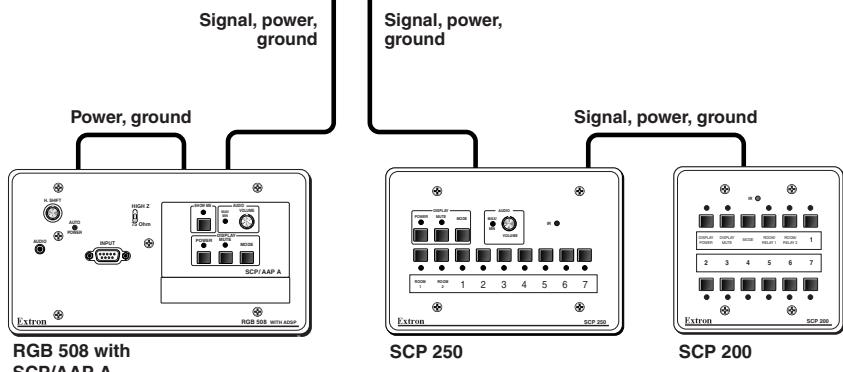
Installation and Operation, cont'd

6. Another device such as an interface or distribution amplifier can receive power from the system switcher via an SCP, as long as the following limits for the total load attached to each switcher are not exceeded:
 - System 7SC — 12VDC, 1 A
 - System 5cr Plus — 12VDC, 0.5 A (500 mA) (each port provides 250 mA)

Examples of systems that include another device that receives power via an SCP are shown below.



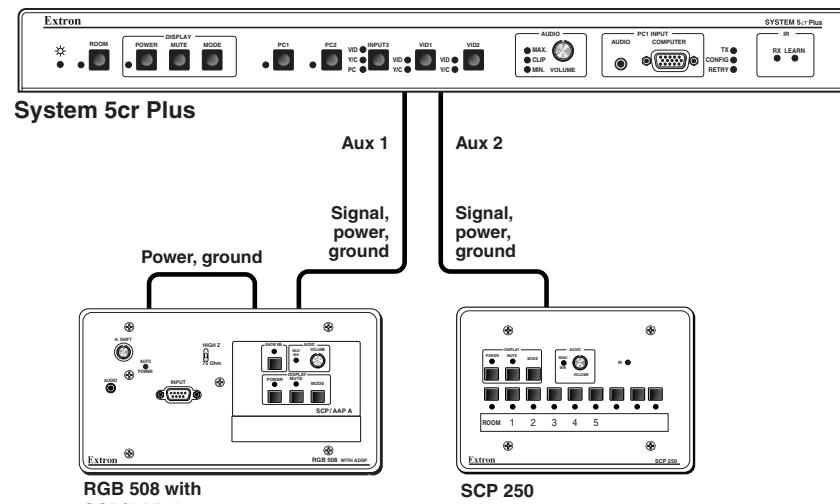
System 7SC



RGB 508 with SCP/AAP A

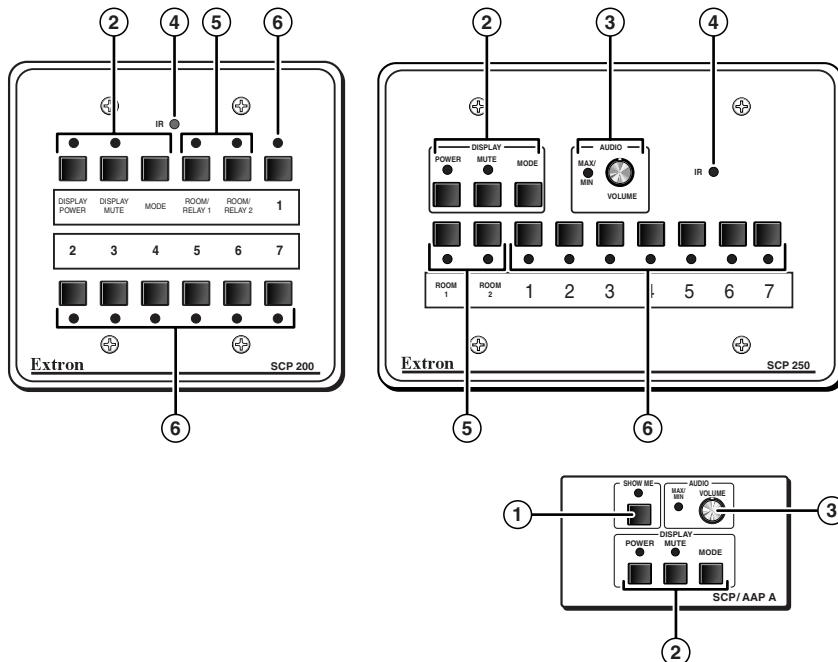
SCP 250

SCP 200



7. After each SCP has been cabled and tested, mount it into the wall box, brackets, or furniture. See pages 2-12 and 2-13.

Front Panel Features and Operation



① Show Me button and LED (SCP/AAP A only) — Press this button once to select the specific input designated via the SCP/AAP A's rear panel DIP switch. The LED next to the Show Me button lights when that input is selected. The switcher's corresponding LED also lights.

② Display control buttons (Power, Mute, Mode) and LEDs — The settings of the display control functions are customized for each projector. These buttons function only after they have been programmed on the System 7SC or System 5cr Plus.

Display power (Power) button and LED — Pressing this button turns the projector's power on/off. It may also be tied to a Room function (System 7SC only) if programmed to do so.

The LED lights when projector power is on, and it blinks during projector power-up/power-down. The power-up/down delay times are set via the Windows-based control software that is included with the switcher.

Display mute (Mute) button — Press this button to turn the projector's "mute" function on or off (to turn off/on the displayed image) once the Mute button has been programmed for use with the projector.

Mode button — For the System 5cr Plus, this button can be programmed to switch the mode of the projector between computer-video (RGB), S-video, and composite video. For the System 7SC, this button can be programmed to execute any RS-232 or IR command.

③ Volume control knob and LED — Turn this knob to adjust the audio volume. For the System 7SC this affects the Variable (preampl) audio output, not the fixed output. There is no physical limit to this knob's rotation. The LED blinks when the knob has reached its functional minimum or maximum limit.

④ IR signal pickup device — This allows for IR control of the switcher. Like the IR signal pickup device on the switcher, this receives commands from the IR 401 or IR 701 remote control and sends them to the switcher. Infrared signals from other devices are not passed on through the switcher. The IR remote must be within 50 feet (15.2 meters) of and pointed directly at this device for best results.

NOTE *Switcher configuration must be done using the front panel controls or RS-232 control. Configuration cannot be done from the IR 401 or IR 701.*

⑤ Room control buttons and LEDs — Room buttons control the switcher's Relay ports, which control "room" functions—items such as room lighting, window coverings, and display screens—via momentary or latching contact. The Room 1 button can be used for both the System 5cr Plus and the System 7SC, the Room 2 button is used only with the System 7SC.

These contacts may be used to control any equipment as long as the contact specifications of a total of 24 volts at 1 ampere are not exceeded. The Room buttons light while the room functions are active (on).

Refer to the *System 5cr Plus User's Manual* and the *System 7SC User's Manual* for information on the room function/Relay ports.

⑥ Input selection buttons and LEDs — These buttons correspond to the input selection buttons on the front of the switcher. See page B-13 in this manual for an example of how the SCP 250's input selection buttons are assigned depending on the model of switcher the SCP is connected to.

Testing/Troubleshooting

Before installing the control pad into the wall or furniture, test the system to make sure that the connections are correct and the SCP is working correctly.

1. Connect the cables between the switcher and the SCP(s).
2. Power on the switcher.
3. Press the input selection buttons or Show Me button on the SCP, and watch the LEDs on the switcher to see if the system switches to the desired input(s).

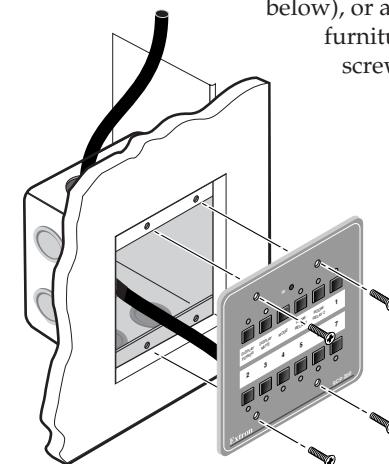
NOTE *The connections between the SCP and the system switcher can be tested even if input/output devices are not available.*

- If the SCP's input selection or Show Me LED does not light, check the captive screw connector wiring at both the switcher and the SCP. If the conductor assignments are not the same at both ends, the SCP will not turn on, and circuits may be damaged if power is applied to the wrong pole. Verify that the connectors are wired identically at both ends of the cable and that the faceplate is connected to an earth ground via the wall box or directly.
 - If power is present at the SCP, but the switcher does not respond to the SCP's controls, make sure the SCP's DIP switch settings are correct.
4. Call the Extron S3 Sales and Technical Support Hotline if there is still no switcher response to changes made at the SCP.

Mounting the SCP to the Electrical Box

Once the system has been cabled and tested, the control pad can be installed in the wall or furniture.

1. With power removed, insert the SCP into the wall or furniture.
2. Mount it to the wall box (or mounting brackets) with the provided machine screws (as shown in the illustration below), or attach it directly to the furniture with wood or metal screws.



NOTE *If you are not installing the SCP into a grounded metal wall box, make sure that the faceplate is grounded to an earth ground.*



Appendix A

Specifications, Part Numbers, and Accessories

Specifications

Included Parts

Accessories

Cables

Specifications

Control/remote — control pads

IR controller module IR 701 (optional)

General

Power 12VDC, at 60 mA, from the System 7SC or System 5cr Plus switcher
Temperature/humidity Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing
Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non-condensing

Rack mount No, but furniture/wall mountable with included faceplates and electrical boxes or optional mounting bracket kits or AAP wall plates.

Enclosure type Metal

Enclosure dimensions

SCP/AAP A

Plate 2.1" H x 3.5" W x 0.1" D
(three space high AAP plate)
5.3 cm H x 8.9 cm W x 0.3" D
Boards 2.0" H x 2.5" W x 1.6" D
5.1 cm H x 6.4 cm W x 2.6 cm D
(Allow at least 2.1" (5.3 cm) depth in the wall or furniture. Depth excludes connectors and knobs.)

SCP 200

Plate 4.5" H x 4.6" W x 0.1" D (2 gang)
11.4 cm H x 11.7 cm W x 0.3 cm D
Box 3.75" H x 3.6" W x 3.5" D
9.5 cm H x 9.2 cm W x 8.9 cm D
Boards 2.7" H x 3.5" W x 0.9 D
6.9 cm H x 8.9 cm W x 2.3 cm D
(Allow at least 1.5" (3.8 cm) depth in the wall or furniture. Depth excludes connectors and knobs.)

SCP 250

Plate 4.5" H x 6.4" W x 0.1" D (3 gang)
11.4 cm H x 16.3 cm W x 0.3 cm D
Box 3.75" H x 5.4" W x 3.5" D
9.5 cm H x 13.8 cm W x 8.9 cm D
Boards 2.7" H x 5.3" W x 0.9 D
6.9 cm H x 13.5 cm W x 2.3 cm D
(Allow at least 1.5" (3.8 cm) depth in the wall or furniture. Depth excludes connectors and knobs.)

Product weight

SCP/AAP A 0.2 lbs (0.1 kg)
SCP 200 0.3 lbs (0.1 kg)
SCP 250 0.5 lbs (0.2 kg)

Shipping weight

SCP/AAP A 1 lbs (0.5 kg)
SCP 200, SCP 250 3 lbs (1.4 kg)

Vibration ISTA/NSTA 1A in carton
(International Safe Transit Association)

Listings UL, CUL

Compliances CE, FCC Class A
as components of the System 7SC

MTBF 30,000 hours

Warranty 3 years parts and labor

NOTE Specifications are subject to change without notice.

Specifications, Accessories, Part Numbers, cont'd

Included Parts

These items are included in each order for an SCP control pad:

Included parts (SCP/AAP A)	Part number
SCP/AAP A (gray, black, white)	60-339-01, -02, -03
3.5 mm, 5-pole captive screw connectors	10-319-10

Included parts (SCP 200)	Part number
SCP 200 (gray, black, white)	60-338-01, -02, -03
2-gang electrical box	
3.5 mm, 5-pole captive screw connectors	10-319-10

Included parts (SCP 250)	Part number
SCP 250 (gray, black, white)	60-356-01, -02, -03
3-gang electrical box	
3.5 mm, 5-pole captive screw connectors	10-319-10

Accessories

Accessories	Part number
2-gang mounting bracket (gray, black, white)	70-086-01, -11, -21
3-gang mounting bracket (gray, black, white)	70-086-02, -12, -22

Cables

This is the type of cable recommended for connecting a system switcher to one or more SCP control pads:

Comm-link cable	Part number
50 feet/15.2 meters long	26-461-01
100 feet/30.5 meters long	26-461-02
200 feet/61 meters long	26-461-03
400 feet/122 meters long	26-461-04
Bulk 500 feet/152.4 meters long	22-119-02
Bulk 1000 feet/304.8 meters long	22-119-03



SCP/AAP A, SCP 200, SCP 250

B Appendix B

Dimensions, Templates, and Labels

Panel Dimensions

Templates

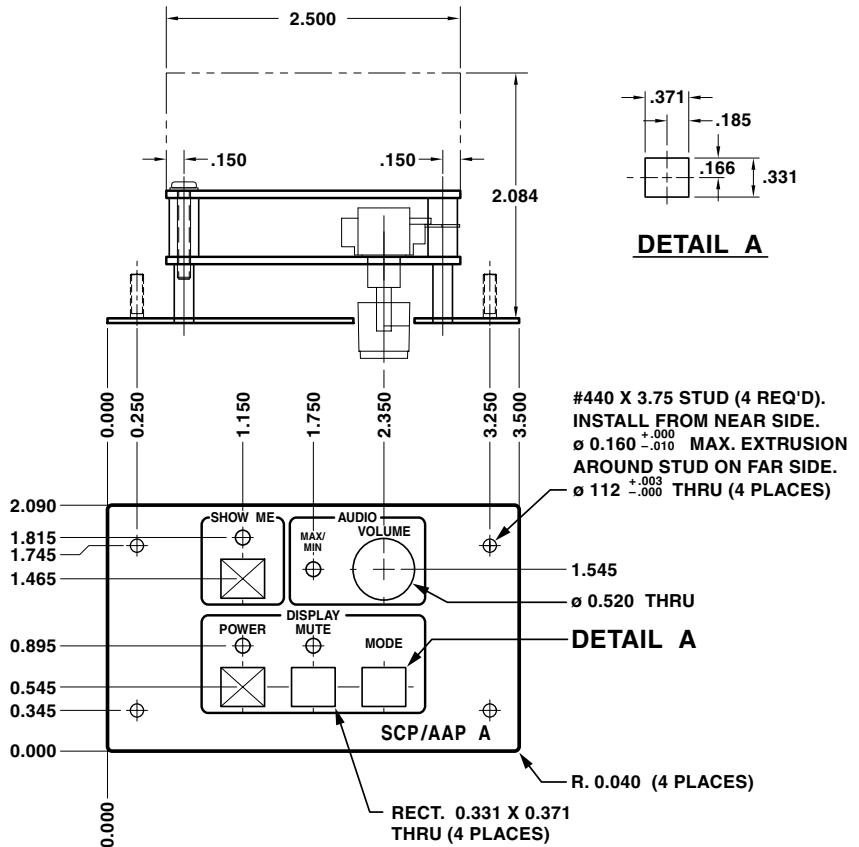
Labeling Buttons on the SCPs

Dimensions, Templates, and Labels, cont'd

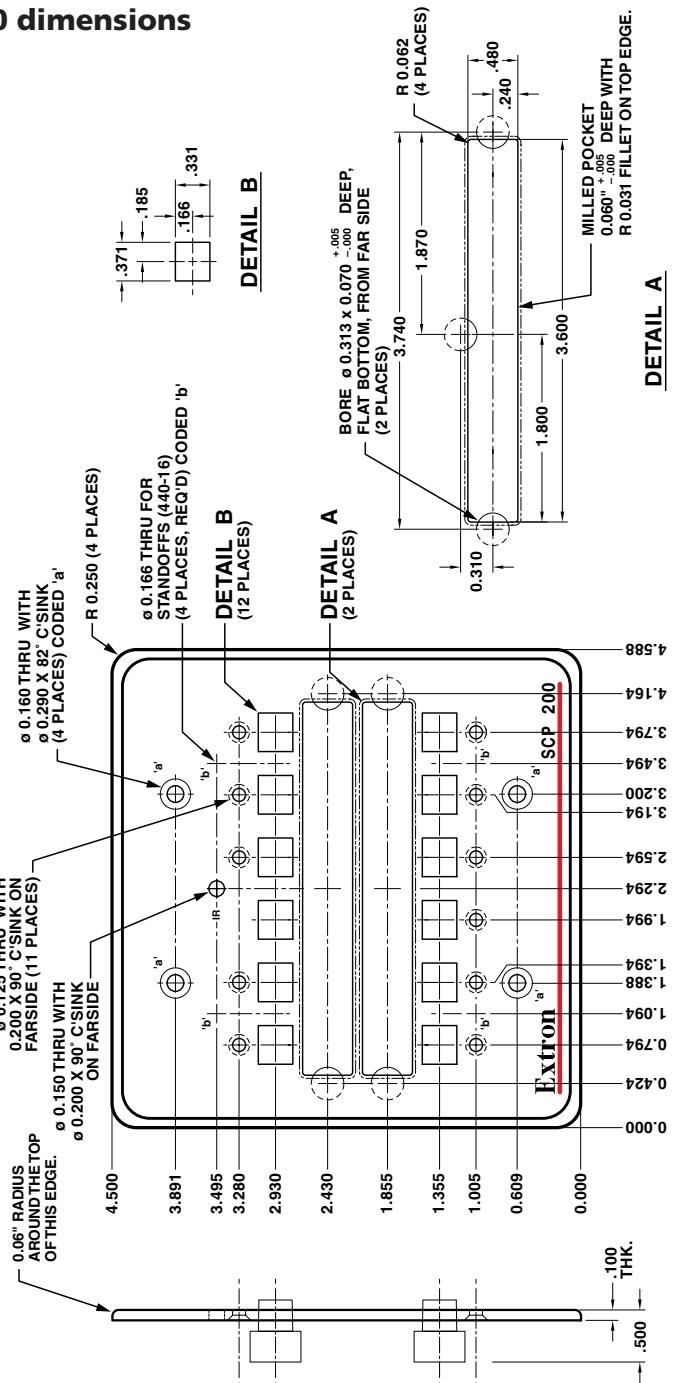
Panel Dimensions

The following diagrams have been reduced to fit on the pages.
All dimensions are given in inches. The symbol “ø” indicates a diameter.

SCP/AAP A dimensions

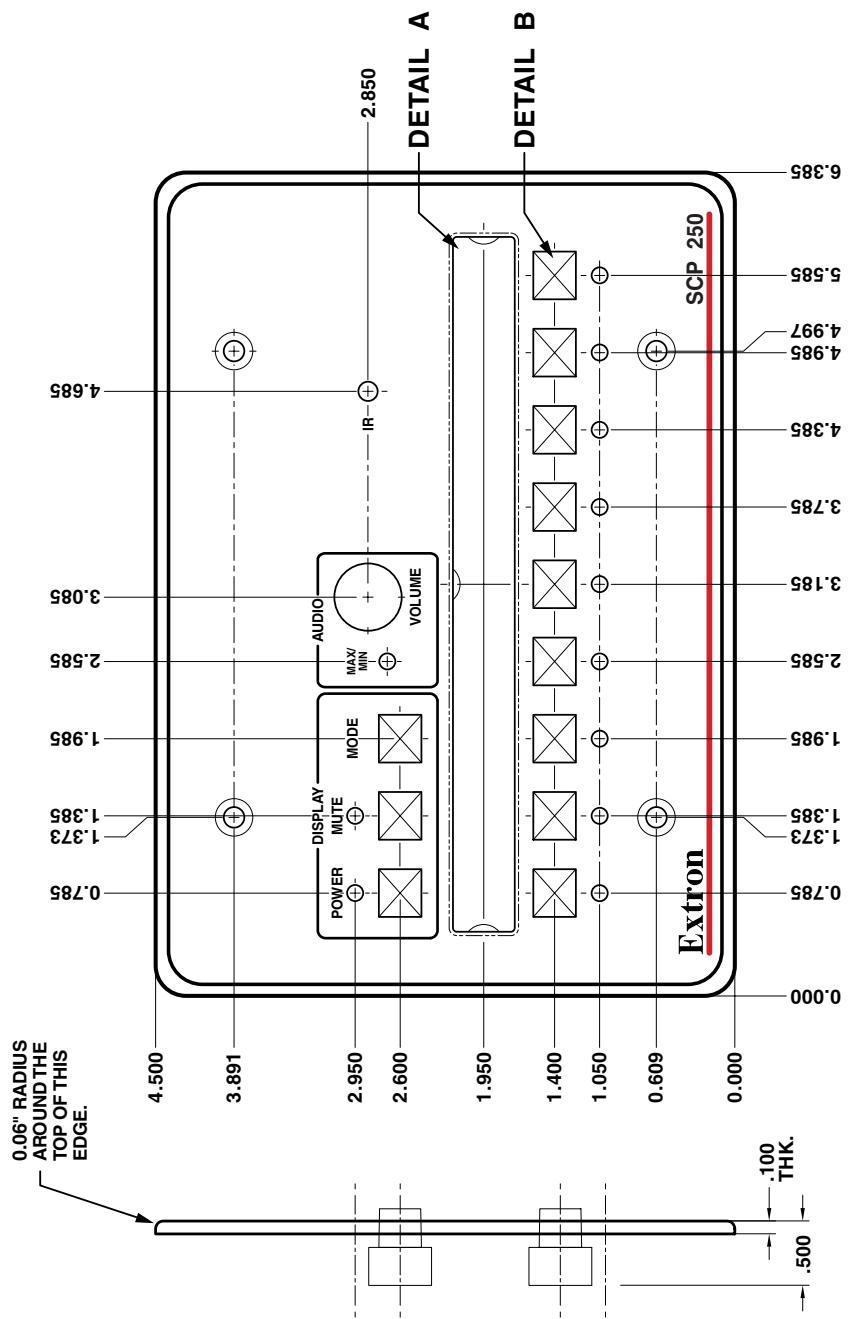


SCP 200 dimensions

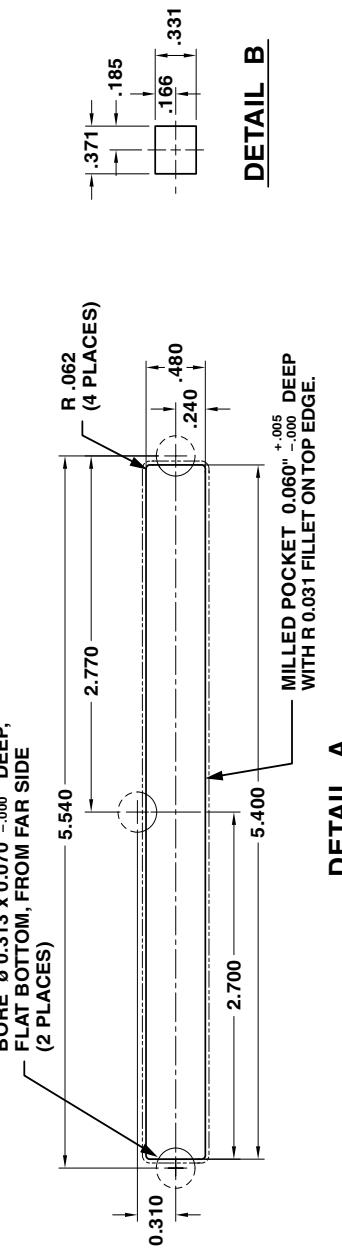


Dimensions, Templates, and Labels, cont'd

SCP 250 dimensions



SCP 250 dimensions details



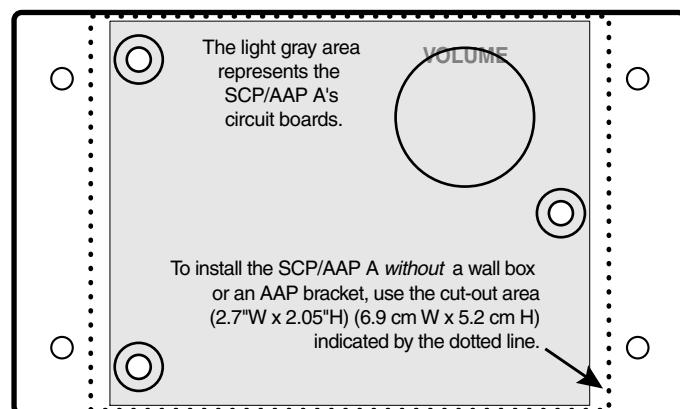
Dimensions, Templates, and Labels, cont'd

Templates

Use the templates as a guide to mark and cut the hole in the wall or furniture through which the SCP control pad will be installed. The templates include the recommended 0.1" (0.25 cm) clearance on all sides of the electrical wall box to allow room for the raised areas surrounding the knockouts. See the installation chapter for details on installing the control pads.

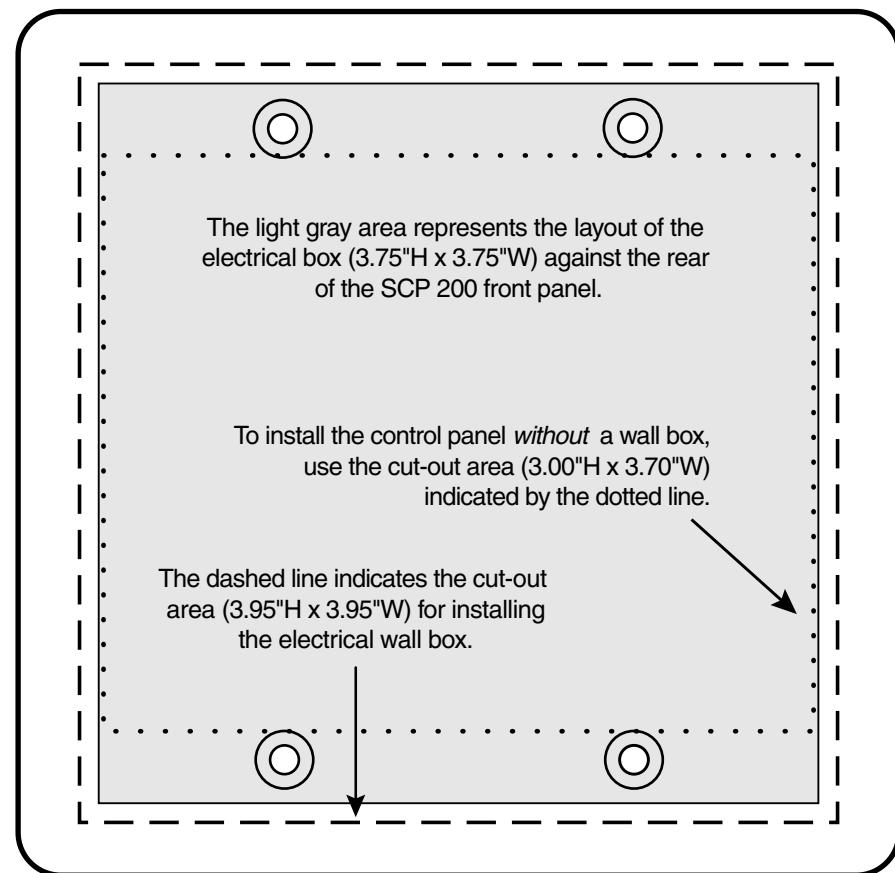
SCP/AAP A template

The SCP/AAP A will usually be mounted in an AAP faceplate/bracket or an architectural series interface, distribution amplifier, or other device. The full-size template below can be used if you are going to install the SCP/AAP A directly into furniture.



SCP 200 template

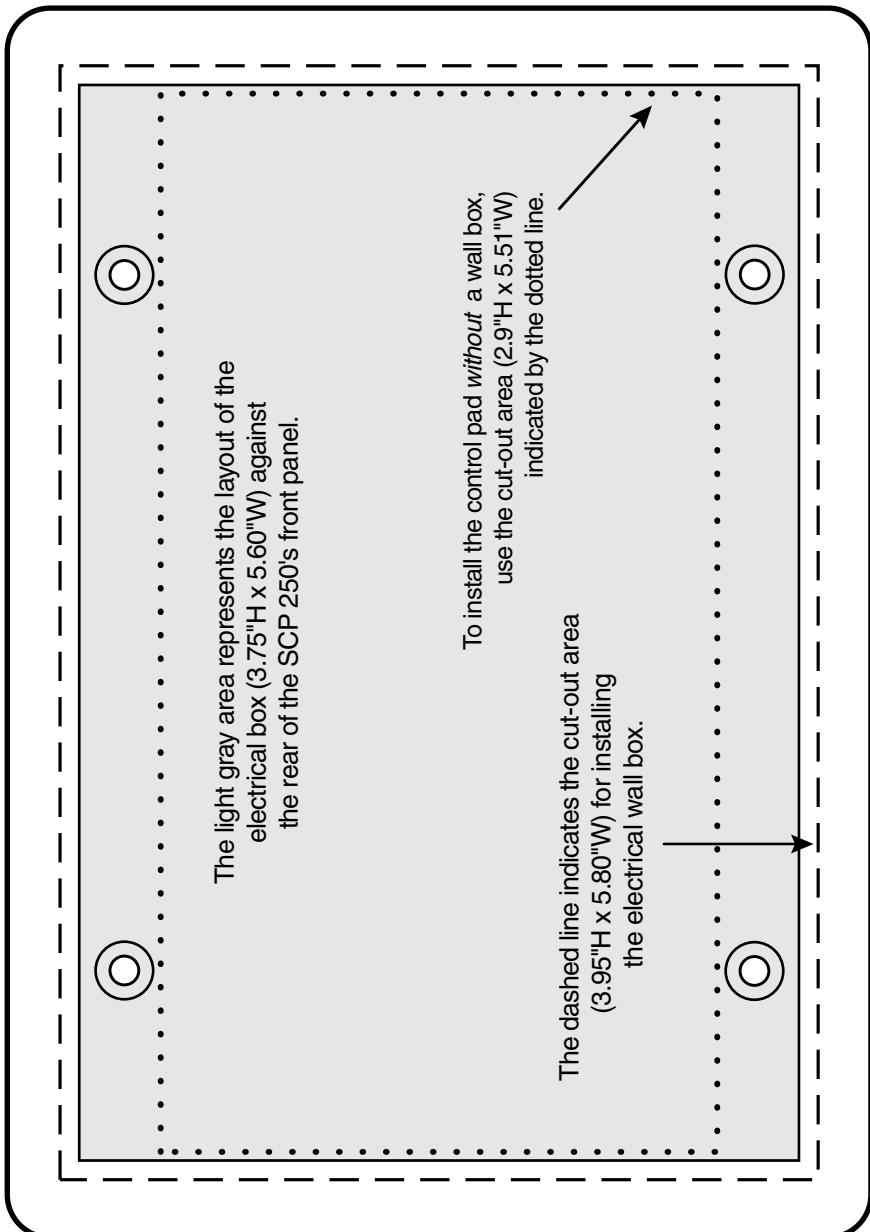
This full-size template is a guide for cutting a hole for the 2-gang size electrical box for the SCP 200 or for the SCP 200 itself (if it will be installed directly into furniture or wall).



Dimensions, Templates, and Labels, cont'd

SCP 250 template

This full-size template is a guide for cutting a hole for the 3-gang size electrical box for the SCP 250 or for the SCP 250 itself (if it will be installed directly into furniture or wall).



Labeling Buttons on the SCPs

The SCP 200 and SCP 250 have translucent panels ("windows") behind which customized labels can be inserted. To remove a panel,

1. Insert the head of a small Phillips screwdriver into the hole in one end of the panel.
2. Gently slide the tab on the edge of the panel out of the recess in the SCP's faceplate.

Premade templates and blank templates for the SCPs' label windows are printed in this chapter. However, you can easily create, customize, and print labels by using the Button-Label Generator software or any Brother P-Touch labeler.

Button-Label Generator software

The Extron Button-Label Generator program (Buttons.exe) is shipped with the System 7SC, and it is also available on the Extron Web site. This program is used to create and print labels that can be placed in slots above/below buttons on the SCPs.

The program occupies approximately 0.5 MB of disk space. It can be run on a diskette from a floppy drive, but it is more convenient to load and run the program from a hard drive.

Installing the software

This program is installed at the same time and from the same diskettes as the System 7SC control program. See the *System 7SC User's Manual* for details. The Button-Label Generator program can be installed separately via the Download page of the Extron Web site (<http://www.extron.com>). Follow the on-screen directions if you install the program from the Web site.

By default, the Windows installation creates a C:\BUTTONS directory, and it will place an icon (Button-Label Generator) into a group or folder named "Extron Electronics".

Using the software to make labels

1. To run the Button-Label Generator program, double-click on the Button-Label Generator icon (shown at left) in the Extron Electronics group or folder, and click OK when prompted.
2. Under *System selection*, choose the item that corresponds to the device for which you want to make labels: SCP 200, or SCP 250. The button label editing area changes to reflect the number and arrangement of buttons on the device.
3. Using normal Windows controls, you can create and print labels for the front panels of the SCPs.

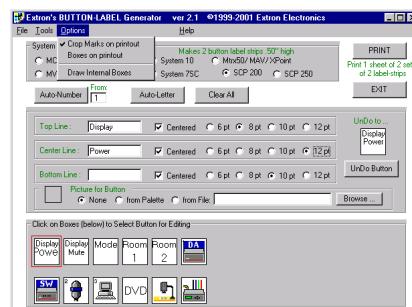
Dimensions, Templates, and Labels, cont'd

- Cut the label strips to the appropriate length, and install them in the SCP's windows.

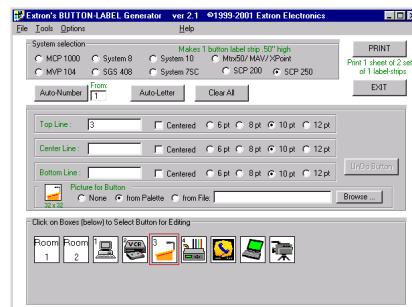
For information about using the program, you can access a help file by clicking on the Help menu on the main screen and choosing *Show Help*.

You can also see an example of a completed Button-Label Generator window by clicking on the Help menu on the main screen, choosing *Show Help*, and clicking on the Load Demo button.

The pictures below show how the Button-Label Generator screens look when set for the SCP 200 and SCP 250.



SCP 200 button label screen



SCP 250 button label screen

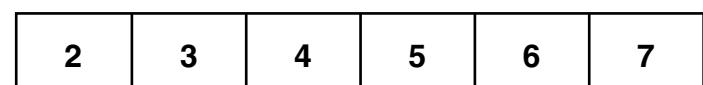
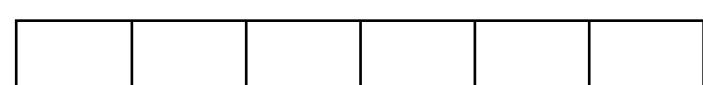
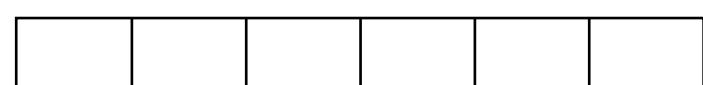
Each input, display, and room control can be labeled with names, alphanumeric characters, or bitmapped pictures. Each button's label can contain from 1 to 3 lines of text (or none). Each line provides a choice of font sizes and text placement.

Pictures can be selected either from the Device Palette or a user-supplied graphic file. User-supplied graphics should be icon (.ICO) or bitmap (.BMP) files. Files called TEST.BMP and DEMO_BTN.DAT are installed with this program as examples.

Label templates

Below and on the following pages are full-sized templates for the labels. Feel free to photocopy them, write button information in each area of the blank templates as desired, cut the strips out, and insert the strips in the label window(s).

SCP 200 labels



Dimensions, Templates, and Labels, cont'd

This page is left intentionally blank.

SCP 250 labels

ROOM 1	ROOM 2	1	2	3	4	5	6	7	
ROOM	1	2	3	4	5	n/a	n/a	n/a	

For use with a System 7SC switcher

For use with a System 5cr Plus switcher

Dimensions, Templates, and Labels, cont'd

This page is left intentionally blank.